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Author(s): Bernard Comrie, Diana Forker, and Zaira Khalilova

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## **Alignment Typology, Reflexives, and Reciprocals in Tsezic Languages**

BERNARD COMRIE<sup>1,2</sup>, DIANA FORKER<sup>3</sup>, and ZAIRA KHALILOVA<sup>1</sup>

*Max Planck Institute for Evolutionary Anthropology<sup>1</sup>; University of California Santa Barbara<sup>2</sup>; University of Bamberg<sup>3</sup>*

### **1 The Tsezic Languages**

The Tsezic (Didoic) languages form a well-defined sub-group within the Nakh-Daghestanian (East Caucasian, Northeast Caucasian) language family. They are spoken primarily in the west of the Republic of Daghestan in the Russian Federation, close to the border with Georgia, although there are also some recent settlements in lowland Daghestan and across the border in Georgia. Five individual Tsezic languages are usually recognized, although the differences within Khwarshi between Khwarshi Proper and Inkhoqwari are perhaps sufficient to consider these two distinct languages; our own Khwarshi data in this article are from the Kwantlada subdialect of Inkhoqwari. The languages, listed in what follows from north to south and then from west to east, are divided into West Tsezic – Khwarshi [khv], Tsez (Dido) [ddo], and Hinuq [gin] – and East Tsezic – Bezhta (Kapuchi) [kap] and Hunzib [huz]. Hinuq, sandwiched between Tsez and Bezhta, sometimes patterns with East rather than West Tsezic.

The Tsezic languages are all predominantly, though not rigidly, verb-final at the clause level, and more generally head-final at the phrasal level. They have a gender (noun class) system, with four or five genders depending on language and dialect. The genders are identified in examples by means of roman numerals; in all languages, gender I comprises all and only nouns with male human denotation, while gender II includes (and in some languages is limited to) all nouns denoting female humans. In the plural, only a two-way distinction is made, either human versus non-human or virile (male human) versus non-virile.

Except where more specific sources are given in the text, our data on Khwarshi are taken from Khalilova (2009), on Tsez from fieldwork by Bernard Comrie and Maria Polinsky, on Hinuq from Forker (2011), on Bezhta from

fieldwork by Bernard Comrie, Madzhid Khalilov, and Zaira Khalilova (the last two also native speakers of Bezhta), and on Hunzib from van den Berg (1995).

## 2 Clause Structure Types

In discussing the clause structure of Tsezic languages, it is useful to identify a number of clause structure (valency) types, the most important for our present purposes being intransitive, transitive, and affective, all three of which are distinguished in parallel fashion in all Tsezic languages.

Intransitive clauses have a single core argument (where necessary abbreviated S) in the Absolutive case. If the verb can show gender–number agreement (see section 3.2 below), then it will agree with this single core argument.

Khwarshi

- (1) hadam                      b-odo-še                      b-eč-un.  
people(HPL.ABS) HPL-work-IPFVCVB HPL-be-PSTUNW  
'The people have been working.'

Bezhta

- (2) kid                      y-e<sup>n</sup>ʁ'e-yo.  
girl(II.ABS) II-go-PST  
'The girl went.'

Transitive clauses have two core arguments, one typically more agent-like (and abbreviated A) in the Ergative case, the other typically more patient-like (abbreviated P) in the Absolutive case. If the verb can show gender–number agreement, then it agrees with the P argument.

Khwarshi

- (3) heč'č'e atyul              madinat-i              ō<sup>n</sup>ču              b-ez-un.  
most in.front Madinat(II)-ERG hen (III.ABS) III-buy-PSTUNW  
'First Madinat bought the hen.'

Bezhta

- (4) mexanik-li              radio              y-it'il-lo.  
mechanic(I)-ERG radio(IV.ABS) IV-repair-PST  
'The mechanic repaired the radio.'

Affective clauses contain verbs expressing perceptions, emotions, etc. In the affective clause there are again two core arguments, an experiencer-like argument (abbreviated Exp) in the Lative case and a stimulus-like argument (abbreviated Stim) in the Absolutive case. If the verb can show gender–number agreement,

then it agrees with the Stim argument. It will be noted that the general rule for verb indexing in the Tsezic languages is that verbs agree only with their core argument in the Absolutive case.

Khwarshi

- (5) bet'erhan-il    b-ak-un            boc'o.  
owner(I)-LAT    III-see-PSTUNW    wolf(III.ABS)  
'The owner saw the wolf.'

Bezhta

- (6) di-l            kid            y-ac-ca.  
me(I)-LAT    girl(II.ABS)    II-love-PRS  
'I (male speaker) love the girl.'

There are also other, sometimes language-specific clause types that will not play any major role in what follows. For instance, example (7) illustrates the potential construction in Hinuq, in which the most agent-like argument stands in the At-essive case (literally expressing location at), the typically patient-like argument in the Absolutive.

Hinuq

- (7) łac-qo            ac            y-ayi-ł-o            gom.  
wind-AT.ESS    door(IV.ABS)    IV-open-POT-IPFVCVB    be.NEG  
'The wind can't open the door.'

### 3 Morphological Alignment

The main morphological phenomena relevant to alignment typology in Tsezic languages are case marking, discussed in section 3.1, and verb indexing, discussed in section 3.2.

#### 3.1 Case Marking

The Tsezic languages, like most other Nakh-Daghestanian languages, have rich case inventories, composed primarily of spatial cases, but only a small number of cases are relevant for present purposes. All of intransitive S, transitive P, and affective Stim stand in the Absolutive case. Transitive A stands in the Ergative case, while affective Exp stands in the Lative case. Alignment thus groups together S, P, and Stim as opposed to A or Exp. In comparing intransitive and transitive clauses, this is ergative-absolutive alignment of case marking.

The Absolutive case is always identical to the citation form of the noun phrase in question. The Lative case is always distinct from the Absolutive case (and,

indeed, all other cases) through the presence of the Lative suffix. The morphology of the Ergative is more complex. For most noun phrases in most Tsezic languages, the Ergative is distinct from the Absolutive (and all other cases), sometimes through the presence of a distinct Ergative suffix, sometimes through the use of an Oblique stem distinct from the Absolutive, with the Ergative having no additional suffix, all other oblique cases using the Oblique stem plus a case suffix. The distribution of these two (and occasional other) types varies from language to language, and even from noun phrase to noun phrase within a language. To this general pattern of an Ergative case distinct from the Absolutive there are two exceptions.

The first concerns first- and second-person pronouns. Only in Khwarshi do all these personal pronouns have distinct Ergative and Absolutive cases. In Tsez, this case distinction is made in the plural, but not in the singular. In Hinuq and the East Tsezic languages, no first- and second-person pronouns make this case distinction. The relevant forms are set out in (8).

(8) First- and second-person pronouns

	1SG		2SG		1PL		2PL	
	S/P	A	S/P	A	S/P	A	S/P	A
Khwarshi	do	de	mo	me	ɪlʸo	ɪlʸé	mížo	mižé
Tsez	di	di	mi	mi	eli	elā	meži	mežā
Hinuq	de	de	me	me	eli	eli	meži	meži
Bezhta	do	do	mi	mi	ile	ile	miže	miže
Hunzib	də	də	mə	mə	ile	ile	miže	miže

The second concerns only Bezhta. In this language, the Ergative is identical to the Oblique stem, so for nouns with an Oblique stem distinct from the Absolutive, the Ergative is distinct from the Absolutive. However, a good number of nouns have identity of Absolutive and Oblique stems, and thus of Absolutive and Ergative cases. Some examples are given in (9). It should be noted that whether a noun has or lacks an Ergative/Absolutive distinction does not correlate with such features as animacy, which often controls similar patterns in other languages; see further Comrie (2001a).

(9) Selected case forms in Bezhta

	ABS SG	OBL stem	ERG SG	LAT SG
‘brother’	is	ist’i-	ist’i	ist’i-l
‘sister’	isi	isi-	isi	isi-l
‘fox’	sora	sorali-	sorali	sorali-l
‘horse’	soyya	soyya-	soyya	soyya-l
		soyyali-	soyyali	soyyali-l
‘forest’	wan	wana-	wana	wana-l
‘river’	e <sup>n</sup> xe	e <sup>n</sup> xe-	e <sup>n</sup> xe	e <sup>n</sup> xe-l

### 3.2 Verb Indexing

In the Tsezic languages, nearly all vowel-initial verbs index (agree with) one of their arguments in gender–number by means of a single-consonant prefix. A few vowel-initial verbs do not show agreement, perhaps reflecting an earlier stage where there was an initial consonant since lost. Verbs beginning with {V sometimes also show agreement in the same way, the sequence perhaps to be analyzed phonologically as a pharyngealized vowel. In some Tsezic languages, a few verbs also show agreement by means of internal vowel change.

By way of illustration, the agreement prefixes of Tsez are shown in (10). Note that gender I has a zero prefix – this is constant across the Tsezic languages – but the absence of an overt prefix on a verb that takes agreement is always interpreted as indexing a gender I argument; it cannot be interpreted as any kind of missing or default agreement.

(10) Tsez agreement prefixes on verbs

SG				PL	
I	II	III	IV	I	non-I
Ø-	y-	b-	r-	b-	r-

As noted in section 2, where a verb can index an argument, this is always the S, P, or Stim, never the A or Exp. In comparing intransitive and transitive clauses, again we have an instance of ergative-absolutive alignment, agreement being only with the absolutive argument – note that this applies even in those instances where the noun phrase itself does not make a distinction between Absolutive and Ergative cases.

Given that in general only vowel-initial verbs show indexing, one might wonder whether indexing plays any significant role in practice in marking the grammatical relations of noun phrases, especially since most noun phrases distinguish Ergative and Absolutive, and all have a distinct Lativ. And indeed, if one counts verbs in the lexicon, only a minority allow indexing. For Khwarshi, Khalilova (2009:181) finds that about 70% of verbs are consonant-initial and therefore cannot show indexing, a further 7% are vowel-initial but do not show indexing, while only 23% are vowel-initial and show indexing. However, it turns out that the vowel-initial verbs that show indexing include some of the most frequent verbs in the language, including some that are frequently used as auxiliaries in periphrastic constructions. Thus, the first tale in Abdulaev and Abdullaev (2010), *The Rainbow*, comprises a total of 281 words, of which 53 are verb forms showing agreement, 35 (including 8 vowel-initial) verb forms not showing agreement, i.e. forms showing agreement outnumber those not showing agreement in text by a ratio of about 3:2. Since the Tsezic languages have a tendency to omit noun phrases that are retrievable from context, rather than using pronouns,

the importance of verb indexing in reference tracking is greater than might seem from a purely grammatical description of the phenomenon.

#### 4 Syntactic Alignment

Many phenomena that provide good tests for alignment differences in a number of languages across the world do not do so in Tsezic languages. First, many syntactic phenomena in Tsezic languages are neutral with respect to alignment, for instance all major constituents of the clause are accessible to such constructions as relative clause formation and content question formation; for relative clauses in Tsez, see Comrie and Polinsky (1999). Second, there is evidence that such phenomena as pronominalization (whether by zero anaphora or overt pronouns) in Tsezic languages are governed to at least a large extent by pragmatic factors; whether and, if so, to what extent syntactic constraints are involved is a task for future research. Nonetheless, there are some phenomena that are sensitive to differences in grammatical relations and do therefore provide evidence in favor of syntactic alignment in Tsezic languages.

##### 4.1 Control

We use “control” here in at least one of the senses current in formal grammar, namely to indicate the obligatory coreference of a missing argument of a dependent clause with an overt (or understood) argument of a matrix clause. We are concerned with the identification of the missing argument in the dependent clause. Consider Tsez examples (11)–(13) (discussed further in Comrie 2000, 2004).

Tsez

- (11) dā-r      new-ā-yor      Ø-ik'-a    r-eti-x.  
me-LAT   Mokok-IN-DIR   I-go-INF   IV-want-PRS  
'I want to go to Mokok.'
- (12) dā-r      kayat              cax-a      y-eti-x.  
me-LAT   letter(II.ABS)   write-INF   II-want-PRS  
'I want to write a letter.'
- (13) uži-r      kid              y-ukad-a    y-eti-s.  
boy-LAT   girl(II.ABS)   II-see-INF   II-want-PSTWIT  
'The boy wanted to see the girl.'

In each example, the infinitive in the dependent clause lacks an argument that must be interpreted as coreferential with the Lative (experiencer) argument of the matrix verb ‘to want’. In (11), the missing argument is the S of the intransitive verb ‘to go’. In (12), it is the A of the transitive verb ‘to write’. In (13), it is the Exp of the affective verb ‘to see’. In each instance, this is the only possibility, in

particular it is not possible to omit the P of a transitive verb or the Stim of an affective verb under coreference with the appropriate argument in the matrix clause. In comparing transitive and intransitive clauses, alignment is thus nominative-accusative (A treated like S, and unlike P), while in comparing affective and intransitive clauses we have likewise parallel treatment of Exp and S, different treatment of Stim, in each instance going against the morphological alignment in terms of case marking and verb indexing.

## 4.2 Imperative

The situation with imperatives is a little more complex. First, if we compare transitive and intransitive imperative sentence, all Tsezic languages behave like Khwarshi in examples (14)–(15), i.e. the addressee of an imperative sentence may be either the S of an intransitive or the A of a transitive, but not the P of a transitive clause. In other words, here we have nominative-accusative alignment.

Khwarshi

- (14) Ø-o<sup>n</sup>k'-o, obu.  
I-go-IMP father(I)  
'Go, father!'
- (15) miže l-i-yo.  
you.PL(ERG) IV-do-IMP  
'You do it!'

The complications arise with affective verbs, as discussed by Comrie (2001b), though in this early article only comparing Tsez and Bezhta (which happen to represent opposite extremes), in ignorance of the more subtly differentiated picture in Khwarshi and Hinuq. As illustrated in (16), Hinuq allows an imperative to be formed where the addressee is the Exp of the verb 'to love,' i.e. parallel treatment of Exp and S, with different treatment of Stim, since it is not possible for Stim to be the addressee of an imperative sentence. Example (17) provides an alternative way of expressing essentially the same information, by causativizing the affective verb, which produces a transitive imperative sentence in which the A can, as usual, be the addressee.

Hinuq

- (16) debe-z hado uži Ø-eti.  
you-LAT this boy(I.ABS) I-love(IMP)
- (17) me hado uži Ø-eti-r-o.  
you((ERG)) this boy(I.ABS) I-love-CAUS-IMP  
'You love this boy!'



By contrast, Tsez simply disallows the formation of imperative sentences from affective clauses, i.e. (18) is impossible, where the addressee is the Exp, as equally would be an example where the addressee is the Stim. Causativizing the affective verb to give a transitive verb leads to the grammatical sentence (19), where the addressee is A of the imperative sentence.

Tsez

- (18) \*mežu-l      mežu-s      tušman-bi      b-eti.  
you.PL-LAT   you.PL-GEN   enemy-PL(ABS)   IPL-love(IMP)
- (19) mež-ā      mežu-s      tušman-bi      b-eti-r.  
you.PL-ERG   you.PL-GEN   enemy-PL(ABS)   IPL-love-CAUS(IMP)  
'Love your enemies!'

In other words, at least under some circumstances and in some Tsezic languages, affective clauses simply disallow formation of an imperative sentence. More specifically: The formation of imperative sentences from affective clauses seems to be possible quite generally in Bezhta. It seems to be absolutely excluded in Tsez and Hunzib, with only the alternative causative, and therefore transitive, construction being allowed. (For the Hunzib data, see van den Berg (1995:88); note that van den Berg uses “inversive” for our “affective.”) In Khwarshi, imperatives from affective verbs seem generally possible, but are excluded with ‘to find’ and ‘to see’. In Hinuq, imperatives from affective verbs are generally not possible, only the verb ‘to love’, as in (16), allows this possibility. It will be noted that the extent of the possibility of imperative sentences formed from affective clauses bears no close correlation either to the genealogical division of Tsezic languages into West and East or to geographical adjacency.

### **4.3 Reflexives and Reciprocals**

The phenomena described so far, including those relating to syntactic alignment in sections 4.1 and 4.2, are perhaps not too surprising from a cross-linguistic perspective, even if the details of the Tsezic languages at times provide interesting language-specific variations on a universal theme. With respect to control and imperatives, for instance, Dixon (1994:131–137) argues that nominative-accusative alignment is effectively guaranteed on a semantic basis, and that languages would not be expected to differ in this respect, irrespective of their morphological alignment or of their syntactic alignment in constructions where such semantic factors are not present (such as omission of coreferential noun phrases in clause coordination).

Particular interest is therefore provided by reflexive and reciprocal constructions in the Tsezic languages, which do appear, either optionally or obligatorily depending on the language and precise configuration, to violate proposed univer-

sals that would favor nominative-accusative syntax in the direction of ergative-absolutive syntax, with corresponding patterns in affective clauses. It should be noted that we are concerned here only with reflexives and reciprocals where two coreferential arguments, one identifiable as a reflexive or reciprocal marker, are present in the morphosyntactic structure of the construction. Constructions where reflexivity or reciprocity is expressed by means of reducing the valency of the predicate are irrelevant to the issues at hand.

Dixon (1994:138–139) continues his discussion by saying, with respect to reflexives, that “in every ergative language, as in every accusative language, the ‘antecedent’, i.e. the controller of reflexivity is A.” In similar vein, Haspelmath (2007:2096) says with respect to reciprocals that “less prominent arguments cannot antecede more prominent arguments.” (From the context, it is clear that for Haspelmath A is more prominent than P.) We may refer to patterns where the more prominent argument antecedes the less prominent one as “canonical” reflexives or reciprocals.

Of course, in order to test such claims it is necessary to have a more precise notion of “prominence”, but it is clear from sources such as those cited that A will be more prominent than P, probably that Exp will be more prominent than Stim, and that in a language with a well-defined category of subject then subject will be more prominent than other grammatical relations. In languages with “promotional” voice systems, the hierarchy placing A above P or Exp above Stim will sometimes conflict with that placing subject above object, for instance in passive constructions, so one might expect to find some cross-linguistic variation here, although where A/Exp is subject and P/Stim is non-subject, then the prominence relation is clear. In this respect, it is useful to compare English and Tagalog. (The English data below include both reflexives and reciprocals; the Tagalog data include only reflexives, since in Tagalog reciprocals involve detransitivization, i.e. they do not retain A and P as distinct arguments.)

In English example (20), both the A > P and the subject > non-subject hierarchies are maintained, with the antecedent *John* (A and subject) and the anaphor *himself* (P and object), and this is indeed the only fully acceptable example from the quadruple. Example (21) violates both hierarchies, and is completely unacceptable. Version (22) violates the A > P hierarchy (in terms of the lexical arguments of the verb ‘to hit’), but not the subject > non-subject one, and is marginal. Version (23) violates the subject > non-subject hierarchy, but not the A > P hierarchy, and is completely unacceptable. It seems that in English the hierarchy subject > non-subject is absolute with regard to reflexivization, with the A > P hierarchy playing a less significant role.

- (20) John hit himself.
- (21) \*Himself hit John.
- (22) ?John was hit by himself.

- (23) \*Himself was hit by John.

Examples (24)–(27) show that the same holds for reciprocals in English.

- (24) John and Mary hit each other.  
(25) \*Each other hit John and Mary.  
(26) ?John and Mary were hit by each other.  
(27) \*Each other were hit by John and Mary.

In Tagalog (here following essentially Schachter 1977:292–293) again, two levels of representation can be recognized, one corresponding to the lexical argument structure of the predicate, in which  $A > D$  (or more generally:  $A > \text{non-A}$ ), the other corresponding to a voice-like distinction – “focus”, in traditional Philippinist terminology – where  $F > \text{non-F}$ . (The noun phrase selected as F is marked by the preposed particle *ang*, and the verb form encodes whether A or D has been selected as F. The English translations are necessarily approximate and sometimes marginal or even unacceptable.) In examples (28) and (29), the  $A > D$  hierarchy is maintained, while in (30) and (31) it is violated. In (28) and (31), the  $F > \text{non-F}$  hierarchy is maintained, while in (29)–(30) it is violated. Clearly, in Tagalog only the  $A > D$  hierarchy is relevant to reflexivization, which noun phrase is selected as F is irrelevant.

Tagalog

- (28) Nag-aalala ang lolo sa kaniyang\_sarili.  
AF-worries F grandfather D REFL  
‘Grandfather worries about himself.’  
(29) In-aalala ng lolo ang kaniyang\_sarili.  
DF-worries A grandfather F REFL  
‘Himself is worried about by Grandfather.’  
(30) \*Nag-aalala sa lolo ang kaniyang\_sarili.  
AF-worries D grandfather F REFL  
‘Himself worries about Grandfather.’  
(31) \*In-aalala ang lolo ng kaniyang\_sarili.  
DF-worries F grandfather A REFL  
‘Grandfather is worried about by himself.’

Before turning to Tsezic data, it is worth noting that potential exceptions to generalizations like those proposed by Dixon and Haspelmath have been noted in the earlier literature, more specifically for West Caucasian (Northwest Caucasian) languages. Thus, Smeets (1984:268) analyzes the Adyghe (West Circassian) [ady] reciprocal construction as in (32) as having the reciprocal prefix in the A slot and

the first person plural prefix in the P slot, which would mean that the antecedent is P and the reciprocal A.

Adyghe

(32) tə-zere-ɬeɣʷə-ɣ.

1PL-RECIP-see-PST

‘We saw each other.’

This contrasts, incidentally, directly with the corresponding reflexive, which would have the canonical pattern, as in (33), where the reflexive prefix is in the P slot, the antecedent in the A slot.

Adyghe

(33) zə-t-ɬeɣʷə-ɣ.

REFL-1PL-see-PST

‘We saw ourselves.’

However, Kazenin (2007:751), writing on the closely related Kabardian (East Circassian) [kbd], while placing the reciprocal prefix in the A slot, nonetheless considers that it detransitivizes the verb, i.e. (32) would be an intransitive reciprocal construction and the question of a prominence relation between two arguments would not arise. Letuchiy (2007:809), again dealing with Adyghe, cites examples where both arguments are independent words, the antecedent being a noun phrase preferably in the Oblique case (which subsumes A), i.e. a canonical reciprocal, but with a less preferred, questionable alternative where it stands in the Absolutive (subsuming P).

Clearly, the data on West Caucasian reciprocals are complex and have been subject to different analyses, some but not all of which would make them non-canonical. Moreover, since the main construction seems to involve prefixes within the verb morphology rather than independent noun phrases, apparent violations of canonicity might be put down to the vagaries of morphology. In any event, more work is needed on reciprocals in these languages.

Fortunately, the data from the Tsezic languages are clear, both for reflexives and for reciprocals, and provide clear evidence of violations of canonicity. Nonetheless, we need to make some caveats with respect to the following data. Reflexive and reciprocal constructions are extremely rare in the texts to which we have had access, and most of the following data are therefore elicited. Where possible, and this applies especially to the Khwarshi, Hinuq, and Bezhta data, we have made the usual attempts to ensure that our data are as reliable as possible, including checking with multiple speakers. In some instances, we also tried to elicit alternative constructions to the version initially offered, in particular to test variations in word order. We consider these data, especially on alternative word

orders, less reliable, but have nonetheless given the judgments of our consultants where we have them. The Tsez data are more restricted, in that they relate to reflexives but not (with one exception) to reciprocals, and are taken from Polinsky and Comrie (2003). We have so far no comparable data for Hunzib.

#### 4.3.1 Reflexives in Tsezic

In Tsez transitive constructions, the relation between antecedent and anaphor is canonical, with the A as antecedent and the P as anaphor, as in (34). The equivalent non-canonical relation of antecedent and anaphor is judged unacceptable. However, inverting the word order in (34) to place the anaphor before the antecedent is judged acceptable. In the affective construction, only the non-canonical construction, as in (35), where the antecedent is the Stim (in the Absolutive) and the anaphor the Exp (in the Lative) is accepted; changing the order of the two noun phrases is very questionable.

Tsez

- (34) ʕal-ā        nesā\_že        žek'-si.  
Ali(I)-ERG REFL(I.ABS) hit-PSTWIT  
'Ali hit himself.'
- (35) pat'i        neŋo <r>\_že        y-eti-x.  
Pati(II.ABS) REFL(II)<LAT> II-love-PRS  
'Pati loves herself.'

Bezhta has two different reflexive formations available clause-internally, which have different properties. The first is the simple reflexive, such as Absolutive *žu* in (36) and (38). With this choice of reflexive, the construction is canonical, with the A or Exp as antecedent, the P or Stim as anaphor. Changing the order of the two arguments is not permitted. (An instance of *žu* preceding its intended anaphor is interpreted as coreferential with an antecedent in a previous sentence, indicating topic continuity.) The compound reflexive, as in (37)–(39), reverses the antecedent-anaphor relation, since now the P or Stim is antecedent, the A or Exp anaphor. If the compound reflexive is used, then the linear order of antecedent and anaphor may be inverted.

Bezhta

- (36) murad-i        žu        Ø-uyo-l-lo.  
Murad(I)-ERG REFL(ABS) I-die-CAUS-PST
- (37) murad        hini\_hin-i        Ø-uyo-l-lo.  
Murad(I.ABS) REFL-ERG I-die-CAUS-PST  
'Murad killed himself.'
- (38) ist'i-l        žu        Ø-ac-ca.  
brother(I)-LAT REFL(ABS) I-like-PRS

- (39) is                      hiniš\_hini-l   Ø-ac-ca.  
 brother(I.ABS)   REFL-LAT   I-like-PRS  
 ‘Brother likes himself.’

Khwarshi, like Tzez, has only a compound reflexive. In both transitive and affective constructions, it allows both canonical (as in (40), (42)) and non-canonical (as in (41), (43)) relations between antecedent and anaphor. In all four examples, inverting the linear order of antecedent and anaphor is judged acceptable.

Khwarshi

- (40) ražab-i              žu\_žuč      Ø-uwox-i.  
 Rajab(I)-ERG   REFL(ABS) I-kill-PSTWIT  
 (41) ražab              ise\_iseč      Ø-uwox-i.  
 Rajab(I.ABS)   REFL.ERG I-kill-PSTWIT  
 ‘Rajab killed himself.’  
 (42) musa-l              žu\_žuč      Ø-iyōq’.  
 Musa(I)-LAT   REFL(ABS) I-know.GNT  
 (43) musa              ise\_isu-l      Ø-iyōq’.  
 Musa(I.ABS)   REFL-LAT I-know.GNT  
 ‘Musa knows himself.’

For transitive constructions, Hinuq allows either a simple reflexive, as in (44), or a compound reflexive, as in (45). In both cases, the relation between antecedent and anaphor is canonical. (Inversion of the linear order of antecedent and anaphor remains to be checked for (44); for (45), it is disallowed.) For affective constructions, there are two possibilities. Sentence (46) illustrates the analytically more straightforward of these, with a compound reflexive, and with the non-canonical relation between antecedent and anaphor. Inverting the linear order of antecedent and anaphor is possible.

Hinuq

- (44) maḥama-y              zo              Ø-uher-iš.  
 Mahama(I)-ERG   REFL(ABS) I-kill-PSTWIT  
 ‘Mahama killed himself.’  
 (45) šayix-i              zoni\_zo      zok-ko.  
 Sheikh-ERG   REFL(ABS) beat.prs  
 ‘Sheikh beats himself.’  
 (46) madina              zoni\_zon-ez   y-eq’i-yo.  
 Madina(II.ABS)   REFL-LAT   II-know-PRS  
 (47) madina-z              zon-ez      zo              y-eq’i-yo.  
 Madina(II)-LAT   REFL-LAT   REFL(ABS) II-know-PRS  
 ‘Madina knows herself.’

Example (47) is more complex. The antecedent *madinaz* is in the Lative case, the case appropriate to Exp, which suggests a canonical relation between antecedent and anaphor. The problem is the “compound reflexive” *zonez zo*. Compound reflexives of this type, where the first component echoes the case of the antecedent, are found only in affective and a few other constructions – for instance, the potential illustrated in (7) – which makes it difficult to generalize. However, inverting the linear order of antecedent and anaphor is possible, giving *zonez zo madinaz yeq’iyo*, where the structure *zonez zo* is treated as a single unit for movement purposes. We therefore assume that *zonez zo* is some kind of Absolutive of the reflexive pronoun, and treat (47) as an instance of the canonical relation between antecedent and anaphor.

#### 4.3.2 Reciprocals in Tsezic

In this section we start with Bezhta data, which provide the clearest counterexamples to the canonical relation between antecedent and anaphor. In both (48) and (49), illustrating transitive and affective clauses respectively, the only possible relation is where the P or Stim is the antecedent and the A or Exp the anaphor. In both examples, inverting the linear order of antecedent and anaphor is possible.

Bezhta

- (48) kid-na            öžö-nä            sid<i>\_hos    b-iyax’e-yo.  
 girl(ABS)-and   boy(ABS)-and   RECIP<ERG>   IPL-kill.PL-PST  
 ‘The girl and the boy killed each other.’
- (49) pat’imat-na    rasul-na            sidi<l>\_hosso   b-āc-ca.  
 Patimat-and   Rasul-and   RECIP<LAT>   IPL-like-PRS  
 ‘Patimat and Rasul like each other.’

In Khwarshi, in both transitive and affective clauses, both canonical ((51) and (53)) and non-canonical ((50) and (52)) relations between antecedent and anaphor are possible, and the linear order of antecedent and anaphor can be inverted.

Khwarshi

- (50) y<sup>sw</sup>e-bo            hadiyad-za    ha<sup>n</sup>ha<sup>n</sup>-i.  
 dog-PL.ABS   RECIP-ERG   bite-PSTWIT  
 (51) y<sup>sw</sup>e-za            hadiyad-ba    ha<sup>n</sup>ha<sup>n</sup>-i.  
 dog-PL.ERG   RECIP-ABS   bite-PSTWIT  
 ‘The dogs bit each other.’
- (52) izzu            hadiyadi-l    goq-še.  
 they(ABS)   RECIP-LAT   like-PRS
- (53) izzu-l            hadiyad-ba    goq-še.  
 they-LAT   RECIP-ABS   like-PRS  
 ‘They like each other.’

In Hinuq, the transitive construction allows only the canonical relation between antecedent and anaphor, as in (54), while the affective construction allows both relations, as in (55)–(56). In all three examples, the linear order of antecedent and anaphor can be inverted.

Hinuq

- (54) haze-y      sedihes      haži-i-š.  
           they-ERG    RECIP(ABS)    push-PSTWIT  
           ‘They pushed each other.’
- (55) hagbe      sedised-ez    b-eti-yo.  
           they(ABS)    RECIP-LAT    IPL-love-PRS
- (56) hagze-z    sedihes      b-eti-yo.  
           they-LAT    RECIP(ABS)    IPL-love-PRS  
           ‘They love each other.’

The data presented in sections 4.3.1–2 can be summarized as in tables (57)–(58). Where both canonical and non-canonical relations are possible, we have placed canonical above non-canonical in (57), as there seems to be some preference for the canonical relation where it is possible with transitive constructions. Conversely, in (58) we have placed non-canonical first, as this seems to be the preferred version where alternatives are possible with affective constructions. In both tables, non-canonical relations are boldfaced. Instances where only the non-canonical relation is possible are, of course, of particular interest.

(57) Transitive construction

	Reflexive Antecedent	Reflexive	Reciprocal Antecedent	Reciprocal
Tsez	A	P		
Bezhta	A	P		
	<b>P</b>	<b>A</b>	<b>P</b>	<b>A</b>
Khwarshi	A	P	A	P
	<b>P</b>	<b>A</b>	<b>P</b>	<b>A</b>
Hinuq	A	P	A	P

(58) Affective construction

	Reflexive Antecedent	Reflexive	Reciprocal Antecedent	Reciprocal
Tsez	<b>Stim</b>	<b>Exp</b>		
Bezhta	<b>Stim</b>	<b>Exp</b>	<b>Stim</b>	<b>Exp</b>
	Exp	Stim		
Khwarshi	<b>Stim</b>	<b>Exp</b>	<b>Stim</b>	<b>Exp</b>
	Exp	Stim	Exp	Stim
Hinuq	<b>Stim</b>	<b>Exp</b>	<b>Stim</b>	<b>Exp</b>
	Exp	Stim	Exp	Stim



## **5 Conclusions and Prospects**

While the alignment properties of case marking, verb indexing, control, and imperatives in the Tsezic languages might be judged to provide at best minor variations on well attested themes, the alignment properties of reflexive and reciprocal constructions provide major challenges to accepted views on the canonicity of prominence hierarchies in such constructions. In particular, the Tsezic languages provide frequent instances where violations of proposed universal prominence relations between antecedent and anaphor are possible, and even some where such violations are obligatory (the reflexive affective in Tsez, both transitive and affective reciprocals in Bezhta). Clearly, a phenomenon believed to be impossible is now attested.

Now that the phenomenon is attested, future work will need to establish precisely in which languages it is encountered. It is clearly rampant in Tsezic languages. Preliminary data suggest that it may be present in some (though not all) other Nakh-Daghestanian languages, although in some cases more work needs to be done on the analysis of the construction in question (e.g. in some cases the reciprocal may be an adverb rather than a pronoun). Likewise, further analysis seems required before accepting into the fold the West Caucasian examples discussed in section 4.3. However, we are not aware of even potential candidates from other parts of the world. We seem, therefore, to have an areally highly restricted phenomenon – essentially, the North Caucasus (in part) versus the rest of the world! We know of no reason why this should be so; indeed, if non-canonical relations between antecedent and anaphor are a feature of ergative syntax, one might well have expected to find them in languages with rampant ergative syntax, rather than in languages like the Tsezic languages where there is little ergativity beyond morphology.

Of course, one must also consider the possibility that the Tsezic data should be given a different analysis. While in general we leave this as an open challenge, we will finish by suggesting one direction such a reanalysis might take. We do not think that the Tsezic non-canonical reflexive and reciprocal can be analyzed as adverbs in an intransitive construction, given that the case of the reflexive or reciprocal pronoun varies between Ergative and Lative according to what would be expected for an A or Exp in a transitive or affective clause. However, one might want to explore the possibility that non-canonical relations between antecedent and anaphor are not a syntactic phenomenon, but rather a purely morphological one, paralleling morphological ergativity in Tsezic languages as discussed in section 3. One piece of evidence in favor of this is the preference for word orders where the antecedent precedes the anaphor – even where alternatives are possible, they were normally only provided in response to an explicit question; i.e. there is still some sense in which reflexive and reciprocal constructions in Tsezic languages are canonical, namely in the linear order of antecedent before

anaphor. A perhaps more striking piece of evidence comes from the interaction of reflexives and reciprocals with control phenomena as discussed in section 4.1. Take the case of Bezhta, where the non-canonical relation is obligatory in reciprocal constructions. Now imagine we want to embed ‘the girls praised each other’ under a verb of wanting to get ‘the girls want to praise each other’. In the basic structure of the dependent clause, the A will be the reciprocal in the Ergative, while the P will be the antecedent in the Absolutive. In control structures, Bezhta would normally omit the A of the dependent clause, under coreference with the overt noun phrase ‘girls’ in the matrix clause. However, what actually happens in this configuration in Bezhta is as illustrated in (59).

Bezhta

- (59) kibbā-l      y-at’-na      gey      sid<i>\_hos      wecci<b>ow-al.  
          girl.PL-LAT   IV-want-CVB   be.PRS   RECIP<ERG>   praise<HPL>-INF  
          ‘The girls want to praise each other.’  
          [lit. ‘The girls want for each other to praise [them].’]

It is not the Ergative reciprocal pronoun that is omitted in the dependent clause, but rather its Absolutive antecedent, suggesting that the reciprocal pronoun, though Ergative, is perhaps not the A of its clause. Exploration of this and other possibilities remains a task for future research.

### Transcription, Glossing, and Abbreviations

The transcription used for Tsezic languages reflects a broad transcription developed, with minor variations, by a number of scholars working on these languages and based on earlier transcriptions of Caucasian, especially Daghestanian languages. The following IPA correspondences should be noted: ä = [æ], ö = [ø], <sup>n</sup> indicates nasalization of the preceding vowel, a macron indicates a long vowel; c = [ts], č = [tʃ], š = [ʃ], ž = [ʒ], ʎ = [tʃ], y = [j], <sup>y</sup> indicates palatalization of the preceding consonant; an acute accent indicates word accent, marked only where relevant.

Glossing conventions follow the Leipzig Glossing Rules, for which see: <http://www.eva.mpg.de/lingua/resources/glossing-rules.php>. Abbreviations used are the following:

A	Agent-like argument	INF	Infinitive
ABS	Absolutive	IPFVCVB	Imperfective converb
AF	Actor focus	LAT	Lative (motion to)
AT	locative ‘at’	NEG	Negative
CAUS	Causative	OBL	Oblique
CVB	converb	P	Patient-like argument

### *Alignment Typology in Tsezic Languages*

D	Direction	PL	Plural
DF	Direction focus	POT	Potential
DIR	Directional	PRS	Present
DYN	Dynamic	PST	Past
ERG	Ergative	PSTUNW	Past unwitnessed
ESS	Essive (location)	PSTWIT	Past witnessed
Exp	Experiencer-like argument	RECIP	Reciprocal
F	Focus (in Philippine sense)	REFL	Reflexive
GEN	Genitive	S	Single argument of
GNT	General tense		intransitive
HPL	Human plural	SG	Singular
IMP	Imperative	Stim	Stimulus-like argument
IN	locative ‘in’		

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*Alignment Typology in Tsezic Languages*

Bernard Comrie  
Max Planck Institute for Evolutionary Anthropology  
Deutscher Platz 6  
D-04103 Leipzig, Germany

comrie@eva.mpg.de

Diana Forker  
Universität Bamberg  
Institut für allgemeine Sprachwissenschaft  
Obere Karolinenstraße 8  
D-96049 Bamberg, Germany

diana.forker@uni-bamberg.de

Zaira Khalilova  
Max Planck Institute for Evolutionary Anthropology  
Deutscher Platz 6  
D-04103 Leipzig, Germany

khalilova@eva.mpg.de